



PTO/SB/08b (08-03)

Approved for use through 06/30/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known			
		Application Number	10/065,551		
		Filing Date	10/29/2002		
		First Named Inventor	Chistyakov		
		Art Unit	1765		
		Examiner Name	Duy Vu Nguyen Deo		
Sheet	1	of	1	Attorney Docket Number	ZON-004

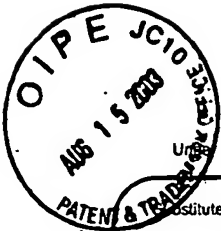
NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
<i>Jm</i>	C13	Encyclopedia Of Low Temperature Plasma, Pg. 119, Vol. 3.	✓
<i>Jm</i>	C14	Encyclopedia Of Low Temperature Plasma, Pg. 123, Vol. 3.	✓
<i>Jm</i>	C15	CHISTYAKOV, High-Power Pulsed Magnetron Sputtering, Application No.: 10/065,277, Filed: September 30, 2002.	
[A large diagonal line is drawn across the remaining rows of the table.]			

Examiner Signature	<i>Robey McDonald</i>	Date Considered	1/10/05
-----------------------	-----------------------	--------------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PTO/SB/08b (08-03)

Approved for use through 06/30/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1 of 1

Complete if Known

Application Number	10/065,551
Filing Date	10/29/2002
First Named Inventor	Chistyakov
Art Unit	1765
Examiner Name	Duy Vu Nguyen
Attorney Docket Number	ZON-004

RECEIVED
AUG 19 2003
GROUP 1700**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
<i>pm</i>	C13	CHISTYAKOV, Roman, High-Power Pulsed Magnetron Sputtering, Application No.: 10/065,277, Filed: September 30, 2002.	

Examiner
Signature*Robert McDonald*Date
Considered

1/10/05

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PTO/SB/08A (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/065,551
		Filing Date	10/29/2002
		First Named Inventor	Chistyakov
		Art Unit	1765
		Examiner Name	Nguyen
Sheet 1 of 3	Attorney Docket Number	ZON-004	

U.S. PATENT DOCUMENTS					
Examiner Initials ¹	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

FOREIGN PATENT DOCUMENTS							
Examiner Initials ¹	Cite No. ¹	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴ - Kind Code ⁵ (if known)				
[Signature]	B1	WO	98/40532	09/17/1998	Chemfilt R. & D. ...		
	B2	WO	01/98553 A1	12/27/2001	Chemfilt R. & D. AB		

Examiner Signature	[Signature]	Date Considered	1/10/05
-----------------------	-------------	--------------------	---------

¹ EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

² Applicant's unique citation designation number (optional). ³ See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ⁴ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁵ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁶ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁷ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



PTO/SB/08B (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Application Number	10/065,551
		Filing Date	10/29/2002
		First Named Inventor	Chistyakov
		Group Art Unit	1765
		Examiner Name	Nguyen
Sheet 2 of 3	Attorney Docket Number	ZON-004	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
yph	C1	BOOTH, ET AL., The Transition From Symmetric To Asymmetric Discharges In Pulsed 13.56 MHz Capacity Coupled Plasmas. J. Appl. Phys., July 15, 1997, Pgs. 552-560, Vol. 82 (2), American Institute of Physics.	
	C2	BUNSHAH, ET AL., Deposition Technologies For Films And Coatings, Materials Science Series, Pgs. 176-183, Noyes Publications, Park Ridge, New Jersey.	
	C3	DAUGHERTY, ET AL., Attachment-Dominated Electron-Beam-Ionized Discharges, Applied Science Letters, May 15, 1976, Vol. 28, No. 10, American Institute of Physics.	
	C4	GOTO, ET AL., Dual Excitation Reactive Ion Etcher for Low Energy Plasma Processing, J. Vac. Sci. Technol. A, Sept./Oct. 1992, Pgs. 3048-3054, Vol.10, No. 5, American Vacuum Society.	
	C5	KOUZNETSOV, ET AL., A Novel Pulsed Magnetron Sputter Technique Utilizing Very High Target Power Densities, Surface & Coatings Technology, Pgs. 290-293, Elsevier Sciences S.A.	
	C6	LINDQUIST, ET AL., High Selectivity Plasma Etching Of Silicon Dioxide With A Dual Frequency 27/2 MHz Capacitive RF Discharge.	
	C7	MACAK, Reactive Sputter Deposition Process of Al2O3 and Characterization Of A Novel High Plasma Density Pulsed Magnetron Discharge. Linkoping Studies In Science And Technology, 1999, Pgs. 1-2, Sweden.	
yua	C8	MACAK, ET AL., Ionized Sputter Deposition Using An Extremely High Plasma Density Pulsed Magnetron Discharge, J. Vac. Sci. Technol. A., July/August 2000, Pgs. 1533-37, Vol. 18, No. 4, American Vacuum Society	

Examiner Signature	<i>Robert M. Dorell</i>	Date Considered	1/10/05
--------------------	-------------------------	-----------------	---------

*EXAMINER: Initial if reference considered. Whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



PTO/SB/08B (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form: 1449B/PTO		Complete if Known			
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/065,551		
		Filing Date	10/29/2002		
		First Named Inventor	Chistyakov		
		Group Art Unit	1765		
		Examiner Name	Nguyen		
Sheet	3	of	3	Attorney Docket Number	ZON-004

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	C9	MOZGRIN, ET AL., High-Current Low-Pressure Quasi -Stationary Discharge In A Magnetic Field: Experimental Research, Plasma Physics Reports, 1995, Pgs. 400-409, Vol. 21, No. 5, Mozgrin, Feitsov, Khodachenko.
	C10	ROSSNAGEL, ET AL., Induced Drift Currents In Circular Planar Magnetrons, J. Vac. Sci. Technol. A., January/February 1987, Pgs. 88-91, Vol. 5, No. 1, American Vacuum Society.
	C11	SHERIDAN, ET AL., Electron Velocity Distribution Functions In A Sputtering Magnetron Discharge For The EXB Direction, J. Vac. Sci. Technol. A., July/August 1998, Pgs. 2173-2176, Vol. 16, No. 4, American Vacuum Society.
	C12	STEINBRUCHEL, A Simple Formula For Low-Energy Sputtering Yields. Applied Physics A., 1985, Pgs. 37-42, Vol. 36, Springer-Verlag.

Examiner Signature		Date Considered	1/10/05
--------------------	--	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18

Stylesheet Version v18.0

RECEIVED
JUN 17 2003
TC 1700

Title of
Invention

High-Power Pulsed Magnetically Enhanced Plasma
Processing

Application Number: 10/065551
Confirmation Number: 7685
First Named Applicant: Roman Chistyakov
Attorney Docket Number: zon-004
Search string: (4588490 or 5083061 or 5728278 or 5795452
or 5863392 or 6057244 or 6451703 or 6447691
or 6471833 or 20020019139 or 20020114897 or
20030006008),pn.

US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
<i>TC</i>	1	4588490	1986-05-13	Cuomo et al.		204	298
<i>TC</i>	2	5083061	1992-01-21	Koshiishi et al.		315	111.81
<i>TC</i>	3	5728278	1998-03-17	Okamura et al.		204	298.11
<i>TC</i>	4	5795452	1998-08-18	Kinoshita et al.		204	298.37
<i>TC</i>	5	5863392	1999-01-26	Drummond et al.		204	192.12
<i>TC</i>	6	6057244	2000-05-02	Hausmann et al.		438	706
<i>TC</i>	7	6451703	2002-09-17	Liu et al.	B1	438	710
<i>TC</i>	8	6447691	2002-09-10	Denda et al.	B1	216	61
<i>TC</i>	9	6471833	2002-10-29	Kumar et al.	B2	204	192.37

US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
<i>TC</i>	1	20020019139	2002-02-14	Zhang et al.	A1	438	714
<i>TC</i>	2	20020114897	2002-08-22	Sumiya et al.	A1	427	569
	3	20030006008	2003-01-09	Horioka et al.	A1	156	345.46

Signature

Examiner Name	Date
<i>Rodney McDonald</i>	<i>1/10/05</i>